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(74) Agent: LEE, Byung-Hyun; #705, New-Seoul Bldg., 828-8, Yeoksam-dong, Kangnam-gu, Seoul 135-080 (KR).

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- (71) Applicant (for all designated States except US): HIS-TOSTEM CORPORATION [KR/KR]; 518-4, Doonchon-dong, Kangdong-gu, Seoul 134-060 (KR).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): KIM, Sung-Whan [KR/KR]: 102. 1st Floor, 637-4., Shinsa-dong, Kangnam-gu, Seoul 135-120 (KR). HAN, Hoon [KR/KR]; 521-101, Hanyang APT, Yangji maeul, Soonae-dong, Boondang-gu, Seongnam-si, Gyeonggi-do 463-922 (KR).

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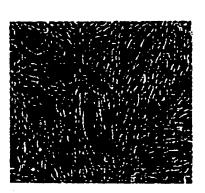
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(54) Title: METHOD OF ISOLATING AND CULTURING MESENCHYMAL STEM CELL DERIVED FROM UMBILICAL CORD BLOOD



(57) Abstract: The present invention relates to a method of isolating and culturing mesenchymal stem cells using umbilical cord blood that is most ideal for cell therapy. The method comprises adding an anti-coagulant to umbilical cord blood having a volume of more than 45 ml per unit, which is obtained within 24 hours after parturition; diluting the resulting mixture of the anti-coagulant and umbilical cord blood with an aMEM (alpha-minimum essential medium), followed by centrifugation to harvest monocytes; and subjecting the obtained monocytes into suspension culture in the aMEM containing Stem Cell Factor, GM-CSF (granulocyte-macrophage colony-stimulating factor), G-CSF (granulocyte colony-stimulating factor), IL-3 (interleukin-3) and IL-6 (interleukin-6).